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2005 SEP -6 A 8: 27

September 1, 2005

SMART & BIGGAR
P.O. Box 2999
Station D
OTTAWA Ontario
K1P 5Y6

1000 RUELLE DE LA RUE

Application No. : **2,441,623**
Owner : **HONDA GIKEN KOGYO KABUSHIKI KAISHA**
Title : **FUEL CELL**
Classification : **H01M-8/10**
Your File No. : **76582-30**
Examiner : **Laurent de Camprieu**

YOU ARE HEREBY NOTIFIED OF A REQUISITION BY THE EXAMINER IN ACCORDANCE WITH SUBSECTION 30(2) OF THE *PATENT RULES*. IN ORDER TO AVOID ABANDONMENT UNDER PARAGRAPH 73(1)(A) OF THE *PATENT ACT*, A WRITTEN REPLY MUST BE RECEIVED WITHIN 6 MONTHS AFTER THE ABOVE DATE.

This application has been examined as originally filed.

The number of claims in this application is 4.

The following documents were identified by word searching in the Techsource data base and Delphion data base. The search of the prior art has revealed the following:

Reference Applied:

✓ Canadian Patent
2,102,695

December 5, 1992

Steck et al.

European Patent Application
1,235,289

August 28, 2002

Rock

Steck et al. disclose a fuel cell comprising: a gasketed membrane electrode assembly including a pair of electrodes 18 and 20 (see figures 2-8) and an electrolyte 16 interposed between the electrodes, the electrodes include gas diffusion layers and electrode catalyst layers facing the electrolyte (page 1 lines 20-27), a surface area of one of the gas diffusion layers being larger than a surface area of the other of gas diffusion layers, the one electrode including an outer marginal region extends outwardly beyond an outer region of the other electrode (page 11 lines 33-34 and page 12 lines 1-2 and 30-33); first and second metal separators 22 and 24 for sandwiching the electrolyte electrode assembly, the first and second metal separators having respective reactant gas flow fields for supplying reactant gases to the electrodes (page 2 lines 1-5); and a seal member (gasket) interposed between the solid polymer electrolyte and the first metal separator in contact

with the other gas diffusion layer, wherein the gasket includes a gasket portion acting as a flow field wall 12c inserted between the outer region of the other gas diffusion layer and the first metal separator (figures 4-8 and page 13 lines 9-13).

Rock discloses a bipolar plate assembly with reactant gas flow fields for a PEM fuel cell wherein said reactant gas flow field is a serpentine flow passage having at least one turn region (page 2 line 10-15) and partition seals (see figures 8-12) in contact with the electrolyte membrane and the reactant gas flow fields.

The examiner has identified the following defects in the application:

Claims 1 and 2 do not comply with paragraph 28.2(1)(b) of the *Patent Act*. Steck et al. disclosed the claimed subject matter before the claim date.

Claims 3-4 do not comply with section 28.3 of the *Patent Act*. The subject matter of these claims would have been obvious on the claim date to a person skilled in the art or science to which they pertain having regard to Steck et al. and Rock. Further disclosure of fuel cells with serpentine gas flow fields and partition seals are features that: are either known from the prior art cited, would have constituted obvious variations to one skilled in the art, or fail to bring about unexpected results.

Paragraph 80(1)(a) of the *Patent Rules* requires that the title be short and precise. "Fuel cell with a seal member defining a reactant gas flow field" is a suitable title.

Claim 1 is indefinite and does not comply with subsection 27(4) of the *Patent Act*. The expression in claim 1 line 17 "between said outer marginal region" is not supported. See description on page 10 line 8

The figures and the description do not comply with section 82 of the *Patent Rules*. Reference characters not mentioned in the description must not appear in the drawings, and vice versa. On page 2 line 18, "a second seal 7a" should read "a second seal 7b". On page 7 line 25, "the coolant supply passage 22a" should read "the coolant supply passage 32a"

In view of the foregoing defects, the applicant is requisitioned, under subsection 30(2) of the *Patent Rules*, to amend the application in order to comply with the *Patent Act* and the *Patent Rules* or to provide arguments as to why the application does comply.

Under section 34 of the *Patent Rules*, any amendment made in response to this requisition must be accompanied by a statement explaining the nature thereof, and how it corrects each of the above identified defects.

Laurent de Camprieux
Patent Examiner
819-994-0249